Appl. No. 10/672,700 IDS dated May 3, 2007 13000



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Eduard K. de Jong

Assignee: Sun Microsystems, Inc.

Title: PERMUTATION OF OPCODE VALUES FOR APPLICATION

PROGRAM OBFUSCATION

Serial No.: 10/672,700 Filed:

April Ying Shan Group Art 2135

Unit:

Docket No.: SUN040023

Examiner:

Monterey, CA May 3, 2007

September 25, 2003

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

05/08/2007 TNGUYEH 2 00000046 10672700

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180.00 OP INFORMATION DISCLOSURE STATEMENT UNDER \$1.97(c) WITH FEE

Sir:

Pursuant to 37 C.F.R. §§ 1.56, 1.97 and 1.98, Applicant(s) wish to call the following documents (a copy of each non-US Patent document is enclosed) to the attention of the Examiner.

U.S. PATENT DOCUMENTS

	DOCUMENT NUMBER		DATE	NAME				
1) //	AS/	4,434,436	02/28/84	Kleykamp et al.				
2)		5,913,064	06/15/99	Chen				
3)	6,098,056 08/01/00		08/01/00	Rusnak et al.				
4)	6,101,606		08/08/00	Diersch et al.				
5)		6,175,925	01/16/01	Nardone et al.				
6)	•	6,178,509	01/23/01	Nardone et al.				
7)		6,205,550	03/20/01	Nardone et al.				
8)		6,266,416	07/24/01	Sigbjømsen et al.				
9)		6,289,455	09/11/01	Kocher et al.				

GUNNISON, AtchAY & HODGSON, Lt...P., rden West Office Plaza, Suite 220 1990 Gurden Road Monterey, CA 93940 (831) 653-6886 Pax (831) 1655-6888

10 11 12 13 14)	6,308,256 6,334,189 6,374,402 6,449,721	10/23/01 12/25/01 04/16/02	Folmsbee Granger et al. Schmeidler et al.
12)	6,374,402		
13)	-:	04/16/02	Schmeidler et al
14)	6,449,721		Tommorardi de ar.
			09/10/02	Pensak et al.
15)	6,480,959	11/12/02	Granger et al.
		6,594,761	07/15/03	Chow et al.
16)	6,615,350	09/02/03	Schell et al.
17)	6,640,305	10/28/03	Kocher et al.
18)	6,643,775	11/04/03	Granger et al
19)	6,668,325	12/23/03	Collberg et al.
20)	6,779,114	08/17/04	Chow et al.
21	.)	6,862,683	03/01/05	Wille et al.
22)	6,966,002	11/15/05	Torrubia-Saez
23)	6,981,217	12/27/05	Knauft et al.
24)	7,017,188	03/21/06	Schmeidler et al.
25)	7,054,443	05/30/06	Jakubowski et al.
26) [;]	7,065,652	06/20/06	Xu et al.
27)	7,080,039	07/18/06	Marsh
28	y	7,089,594	08/08/06	Lal et al.
29)	7,124,445	10/17/06	Cronce et al.
30)	7,127,712	10/24/06	Noble et al.
31)	7,150,003	12/12/06	Naumovich et al.
32)	2002/0184618	12/05/02	Bala et al.
33)	2003/0093685	05/15/03	Tobin
34)	2003/0123664	07/03/03	Pedlow et al.
35)	2003/0172270	09/11/03	Newcombe et al.
36)	2003/0177391	09/18/03	Ofek et al.
37)	2003/0188187	10/02/03	Uchida
38)	2003/0191938	10/09/03	Woods et al.
39)	2003/0233542	12/18/03	Benaloh
40)	2004/0003278	01/01/04	Chen et al.
41)	2004/0039932	02/26/04	Elazar et al.
42) V	2004/0103404	05/27/04	Naumovich et al.

Appl. No. 10/672,700 IDS dated May 3, 2007

43)/AS/	2004/0151306	08/05/04	Kiddy
44)	2004/0260933	12/23/04	Lee
45)	2005/0002053	01/06/05	Meador et al.
46)	2005/0015454	01/20/05	Goodman et al.
47)	2005/0021995	01/27/05	Lal et al.
48)	2005/0044359	02/24/05	Eriksson et al.
49)	2005/0055564	03/10/05	Haselden et al.
50)	2005/0102264	05/12/05	Nason et al.
51)	2006/0026430	02/02/06	Luo .
52)	2006/0048228	03/02/06	Takemori et al.
53)	2006/0218539	09/28/06	Stiemens et al.
54)	2006/0271921	11/30/06	Cronce et al.

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	DOCUMENT NUMBER	DATE	COUNTRY
1) /AS/	WO 00/75760	12/14/00	PCT
2)	WO 01/79972	10/25/01	PCT
3)	WO 02/079955	10/10/02	PCT
4)	WO 04/027678	04/01/04	PCT

OTHER DOCUMENTS

1) . /AS/	Collberg et al., "Breaking Abstractions and Unstructuring Data Structures", IEEE 2005, pages 1-12 [Online]. Retrieved on September 13, 2005 from the Internet: URL: http://ieeexplore.ieee.org/xpl/absprintf.jsp?arnumber=674154 .
2) /AS	Collberg et al., "A Taxonomy of Obfuscating Transformations", / 1997, pages 1-36.
3) /AS	Mambo et al., "A Tentative Approach to Constructing Tamper- Resistant Software", ACM 1998, pages 23-33.

A PTO form 1449 listing these documents is enclosed.

1. an admission that the documents are necessarily prior art with respect to the instant invention;

Serial No. Form PTO-1449 Atty Docket No. 10/672,700 SUN040023 INFORMATION DISCLOSURE CITATION Applicant(s) IN AN APPLICATION Eduard K. de Jong Filing Date Group September 25, 2003 2135 use several sheets if necessary) U.S. PATENT DOCUMENTS EXAMINER FILING DATE CLASS SUBCLASS DOCUMENT NUMBER DATE NAMR IF APPROPRIATE INITIAL **IASI** 02/28/84 Kleykamp et al. 380 209 AA 4,434,436 AB 5,913,064 06/15/99 Chen 717 108 AC 6,098,056 08/01/00 Rusnak et al. 705 75 AD 6,101,606 08/08/00 Diersch et al. 726 27 ΑE 6,175,925 01/16/01 Nardone et al. 726 22 AF 6,178,509 01/23/01 Nardone et al. 726 22 AG 6,205,550 03/20/01 Nardone et al. 726 22 6,266,416 07/24/01 Sigbjørnsen et al. 380 255 AH ΑI 6,289,455 09/11/01 Kocher et al. 713 194 **AJT** 6,308,256 10/23/01 Folmsbee 712 209 AK 6,334,189 12/25/01 Granger et al. 726 26 6,374,402 04/16/02 Schmeidler et al. AL 717 167 6,449,721 09/10/02 MΑ Pensak et al. 713 171 6,480,959 11/12/02 Granger et al. 713 189 AN AO 6,594,761 07/15/03 Chow et al. 713 190 AP 6,615,350 09/02/03 Schell et al. 713 168 10/28/03 713 ΑQ 6,640,305 Kocher et al. 194 AR 11/04/03 713 190 6,643,775 Granger et al. AS 6,668,325 12/23/03 Collberg et al. 713 1.94 AT 6,779,114 08/17/04 Chow et al. 713 189 FOREIGN PATENT DOCUMENTS Translation COUNTRY CLASS SUBCLASS DOCUMENT NUMBER DATE YES NO /AS/ 12/14/00 PCT WO 00/75760 OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) "Breaking Abstractions and Unstructuring Data Collberg et al., /AS/ Structures", IEEE 2005, pages 1-12 [Online]. Retrieved on September 13, 2005 from the Internet: URL:http://ieeexplore.ieee.org/xpl/absprintf. jsp?arnumber=674154>. 10/14/2007 Date Considered Examiner /April Ying Shan/ Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

Form PTO-1449					Atty Docket No. Serial No.					
					SUN040023 10/672,700 Applicant(s)					
1	NFORM	MATION DISCLOSU	RE CITATION							
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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME		CLASS	SUBCLAS		ILING I F APPRO	
/AS/	AA	6,862,683	03/01/05	Wille e	t al.	713	151			
ı	AB	6,966,002	11/15/05	Torrubi	a-Saez	726	29			
	AC	6,981,217	12/27/05	Knauft	et al.	715	531			
	AD	7,017,188	03/21/06	Schmeid	ler et al	. 726	26			
	AE	7,054,443	05/30/06	Jakubow	ski et al	. 380	28			
	AF	7,065,652	06/20/06	Xu et a	1.	713	190			
	AG	7,080,039	07/18/06	Marsh		705	51		······································	
	AH	7,089,594	08/08/06	Lal et	al.	726	31			
	AI	7,124,445	10/17/06	Cronce	et al.	726	26		•	
	AJ	7,127,712	10/24/06	Noble e	t al.	717	173			
	AK	7,150,003	12/12/06	Naumovi	Naumovich et al.		108			•
	AL	2002/0184618	12/05/02	Bala et	al.	717	148			
	AM	2003/0093685	05/15/03	Tobin		713	190			
	AN	2003/0123664	07/03/03	Pedlow	et al.	380	218			
	AO	2003/0172270	09/11/03	Newcomb	e et al.	713	168			
	AP	2003/0177391	09/18/03	Ofek et	al.	726	4			
	AQ	2003/0188187	10/02/03	Uchida		726	26			
	AR	2003/0191938	10/09/03	Woods e	t al.	713	165			
	AS	2003/0233542	12/18/03	Benaloh		713	156			7
V	AT	2004/0003278	01/01/04	Chen et	al.	726	21			
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/AS/	AV	Collberg et al 1-36.	, "A Taxo	nomy of (bfuscatin	g Transfo	rmation	s",	1997,	page
Examiner		/April Ying Shan/	Date Consid	ered 10/	14/2007					
EXAMINER: hrough ci o applica	tation	al if reference con if not in conforma	sidered, whet nce and not c	her or not onsidered.	citation is Include co	in conforma	nce with orm with	MPEP next	609; d commun	raw li icatio

				 						
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/AS/	AA	2004/0039932	02/26/04	Elazar	et al.	726	26			
ı	AB	2004/0103404	05/27/04	Naumovi	ch et al.	717	136			
	AC	2004/0151306	08/05/04	Kiddy		380	28			
	AD	2004/0260933	12/23/04	Lee		713	193			
	AE	2005/0002053	01/06/05	Meador	et al.	358	1.14			
	AF	2005/0015454	01/20/05	Goodman	et al.	709	207			
	AG	2005/0021995	01/27/05	Lal et	al.	726	4		-	
	АН	2005/0044359	02/24/05	Eriksso	n et al.	713	165			
·	AI	2005/.0055564	03/10/05	Haselde	n et al.	726	26			
	AJ	2005/0102264	05/12/05	Nason e	t al.	707	1 .		ij.	
	AK	2006/0026430	02/02/06	Luo		713	176			
	AL	2006/0048228	03/02/06	Takemor	i et al.	726	22			
	AM	2006/0218539	09/28/06	Stiemen	s et al.	717	140			
V	AN	2006/0271921	11/30/06	Cronce	et al.	717	151			
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/AS/	AU	WO 02/079955	10/10/02	PCT	PCT					
· /AS/	AV	WO 04/027678	04/01/04	PCT						
		OTHER DOCUMENT	S (Including	Author, Ti	tle, Date, E	Pertinent Pa	ges, Etc.)		
/AS/	WA	Mambo et al., Software", ACM	1998, page	s 23-33.	ch to Con	structing	Tamper-	Res	istant	
Examiner		/April Ying Shan/	Date Conside	ered	10/14/2007				-	
EXAMINER: through cit	ation	al if reference contif not in conformation	sidered, wheth	ner or not onsidered.	citation is Include cop	in conforman	nce with	MPEP next	609; dr	aw line cation

Appl. No. 10/672,700 IDS dated August 30, 2007

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Eduard K. de Jong

Assignee: Sun Microsystems, Inc.

Title: PERMUTATION OF OPCODE VALUES FOR APPLICATION

PROGRAM OBFUSCATION

Serial No.:

10/672,700

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Examiner:

April Ying Shan

Group Art

2135

Docket No.:

SUN040023

Monterey, CA August 30, 2007

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

69/64/6807 MSEDREM1 62082034 10878/00

UNDER \$1.97(c) WITH FEE

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Sir:

Pursuant to 37 C.F.R. §§ 1.56, 1.97 and 1.98, Applicant(s) wish to call the following documents (a copy of each non-US Patent document is enclosed) to the attention of the Examiner.

U.S. PATENT DOCUMENTS

	DOCUMENT NUMBER		DATE	NAMB				
1) /AS	S/	6,272,616	08/07/01	Fernando et al.				
2)		6,598,166	07/22/03	Folmsbee				
3)		6,609,201	08/19/03	Folmsbee				
4)		6,665,796	12/16/03	Folmsbee				
5)		6,675,298	01/06/04	Folmsbee				
6)		6,757,831	06/29/04	Folmsbee				
7)		6,789,177	09/07/04	Okada				
8)		6,871,298	03/22/05	Cavanaugh et al.				
9)		7,073,713	07/11/06	Silverbrook et al.				

10) /	10) /AS/ 7,170,999		01/30/07	Kessler et al.
11)		7,193,482	03/20/07	Silverbrook
12)		7,201,319	04/10/07	Silverbrook et al.
13)	1	2002/0120854	08/29/02	LeVine et al.

OTHER DOCUMENTS

1) /AS	Low, "Protecting Java Code via Code Obfuscation", pp 1-5 [online]. Retrieved on May 12, 2007 from the Internet: <url:http: codeob.html="" crossroads="" www.acm.org="" xrds4-3="">.</url:http:>
²⁾ /AS/	Collberg et al., "Software Watermarking: Models and Dynamic Embeddings", ACM, 1999, pages 311-324.

A PTO form 1449 listing these documents is enclosed.

Citation of the above documents shall not be construed as:

- 1. an admission that the documents are necessarily prior art with respect to the instant invention;
- 2. a representation that a search has been made, other than as described above; or
- 3. an admission that the information cited herein is, or is considered to be, material to patentability as defined in § 1.56(b).

Enclosed herewith is a check in the amount of \$180.00 payable to the Director of the United States Patent and Trademark Office, which is the amount for submission of an Information Disclosure Statement given in 37 C.F.R. § 1.17(p).

The Commissioner is hereby authorized to charge any additional fees, which may be required to consider this paper, or credit any overpayment to Deposit Account No. 50-0553.

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on <u>August</u> 30, 2007

Respectfully submitted,

Forrest Gunnison

Attorney for Applicant(s)

Reg. No. 32,899 (831) 655-0880

Attorney for Applicant(s)

August 30, 2007

Date of Signature

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/AS/	AA	6,272,616	08/07/01	Fernand	o et al.		712	20				
	AB	6,598,166	07/22/03	Folmsbe	е		713	190				
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	AD	6,665,796	12/16/03	Folmsbe	е		713	190		•		
·	AE	6,675,298	01/06/04	Folmsbe	е		713	190				
	AF	6,757,831	06/29/04	Folmsbe	е		713	190				
	AG	6,789,177	09/07/04	Okada			711	164			-	
	AH	6,871,298	03/22/05	Cavanau	gh et al.		714	33	33			
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	AJ	7,170,999	01/30/07	Kessler	et al.		380	277	277			
	AK	7,193,482	03/20/07	Silverb	rook		331	78	78			
	AL	7,201,319	04/10/07	Silverb	rook et a	1.	235	454				
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